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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/937,373	09/20/2001	Dominick G. More	102014-102	7864

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WIGGIN & DANA LLP
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EXAMINER

LUGO, CARLOS

ART UNIT PAPER NUMBER

3677

DATE MAILED: 04/01/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/937,373

Applicant(s)

MORE ET AL.

Examiner

Carlos Lugo

Art Unit

3677

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 January 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 11-19 is/are rejected.
- 7) ☒ Claim(s) 10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 March 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

1. This Office Action is in response to applicant's amendment filed on January 6, 2003.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:
 - The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.
3. **Claim 19 is rejected** under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 19 recites the limitation "the ridges" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. **Claims 1,2,4,5,13,18 and 19 are rejected** under 35 U.S.C. 102(b) as being anticipated by US Pat No 4,561,662 to Villepoix et al (Villepoix).

Regarding claims 1,5,13 and 18, Villepoix discloses a vacuum seal comprising an outer metallic annular member (16) having a generally C-shaped longitudinal radial cross section, and an inner metallic annular member (14) having a generally C-shaped longitudinal radial cross section.

The outer metallic annular member has a pair of oppositely directed longitudinally outward-projecting ridges (20).

As to claim 2, Villepoix discloses that the inner member provides the primary structural integrity of the seal.

As to claim 4, Villepoix discloses that the inner member is formed of a nickel alloy and the outer member is formed of an aluminum material or copper (Col. 1 Lines 31-35).

As to claim 19, Villepoix illustrates that the outer member is thickest along each of the ridges.

6. Claims 1-3,5,13,18 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by US Pat No 5,022,663 to Fages et al (Fages).

Regarding claims 1,5,13 and 18, Fages discloses a vacuum seal comprising an outer metallic annular member (16) having a generally C-shaped longitudinal radial cross section, and an inner metallic annular member (14) having a generally C-shaped longitudinal radial cross section.

The outer metallic annular member has a pair of oppositely directed longitudinally outward-projecting ridges (18).

As to claim 2, Fages discloses that the inner member provides the primary structural integrity of the seal.

As to claim 3, Fages discloses that the thickness of the inner member (14) is about 2 to 4 times greater than the thickness of the outer member (16).

As to claim 19, Fages illustrates that the outer member is thickest along each of the ridges.

7. **Claims 6,7,9 and 13 are rejected** under 35 U.S.C. 102(e) as being anticipated by FR Pat No 610,973 to Barbarou.

Regarding claims 6 and 13, Barbarou discloses a seal comprising outer and inner metallic annular members (A and B respectively) having longitudinal radial sections.

The outer member is generally C-shaped and opens radially outward. The inner member is nested within the outer member and is generally C-shaped and opens radially outward. The inner member has a wall thickness effective to maintain the outer member in engagement in absence of a spring nested within the inner member.

As to claim 7, Barbarou discloses that the inner member has a full plating of a copper-base material (Lines 33-39).

As to claim 9, the claim is consider as intending use of the seal. Applicant is reminded that a recitation with respect to the manner in which an apparatus is intended to be employed does not impose any structural limitation upon the claimed apparatus, which differentiates it from a prior art reference disclosing the structural limitations of the claim.

8. **Claims 6,8,9,11-13 and 15-17 are rejected** under 35 U.S.C. 102(b) as being anticipated by US Pat No 4,218,067 to Halling.

Regarding claims 6 and 13, Halling discloses a seal comprising outer and inner metallic annular members (14 and 12 respectively) having longitudinal radial sections.

The outer member is generally C-shaped and opens radially outward. The inner member is nested within the outer member and is generally C-shaped and opens radially outward. The inner member has a wall thickness effective to maintain the outer member in engagement in absence of a spring nested within the inner member.

As to claims 8 and 17, Halling discloses that the inner member is formed of a nickel alloy and the outer member is formed of an aluminum material or copper (Col. 3 Lines 64-66).

As to claim 9, the claim is consider as intending use of the seal. Applicant is reminded that a recitation with respect to the manner in which an apparatus is intended to be employed does not impose any structural limitation upon the claimed apparatus, which differentiates it from a prior art reference disclosing the structural limitations of the claim.

As to claims 11 and 12, Halling discloses a method to manufacture a seal using welding, die forming and rolling methods (Col. 2 Lines 40-48).

As to claims 15 and 16, Halling discloses that the seal includes at least one plating coating (16).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 4 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat No 5,022,663 to Fages et al (Fages) in view of US Pat No 4,218,067 to Halling.

Regarding claim 4, Fages fails to disclose that the inner member is formed of a nickel alloy and the outer member is formed of an aluminum material.

Halling discloses that the inner member is formed of a nickel alloy and the outer member is formed of an aluminum material or copper (Col. 3 Lines 64-66).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have an inner member with a plating of a copper material, as taught by Halling, into a seal as described by Fages, in order to have a malleable and resistance seal.

As to claim 14, Fages fails to disclose that the seal includes at least one plating layer.

Halling teaches that is known in the art to have a seal with at least one plating coating (16).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a seal with at least one plating coating, as taught by Halling, into a device as described by Fages, in order to give protection to the outer metallic annular member.

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11. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat No 4,218,067 to Halling in view of US Pat No 4,561,662 to de Villepoix et al (Villepoix).

Halling fails to teach that the inner member has a full plating of a cooper base material. Halling teaches that the inner member has a full plating of a metal base material.

Villepoix teaches that is known in the art to have an inner member that has a plating of a cooper material (Col. 1 Lines 31-35).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have an inner member with a plating of a cooper material, as taught by Villepoix, into a seal as described by Halling, in order to have a malleable and resistance seal.

12. Claims 8 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over FR Pat No 610,973 to Barbarou in view of US Pat No 4,218,067 to Halling.

Barbarou fails to disclose that the inner member is formed of a nickel alloy and the outer member is formed of an aluminum material.

Halling discloses that the inner member is formed of a nickel alloy and the outer member is formed of an aluminum material or copper (Col. 3 Lines 64-66).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have an inner member with a plating of a cooper material, as taught by Halling, into a seal as described by Barbarou, in order to have a malleable and resistance seal.

Allowable Subject Matter

13. **Claim 10 is objected** to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

14. Applicant's arguments filed on January 6, 2003 have been fully considered but they are not persuasive.

Regarding applicant's arguments that Halling fails to disclose that the both the inner and the outer members are open radially outward (Page 5), Halling illustrates that feature in Figure 1.

As to applicant's arguments regarding claim 9 (Page 5), this claim is consider as intended use of the seal.

As to applicant's arguments that Halling, as modified by Villepoix, fails to disclose the invention as claimed (Pages 5 and 6), this argument is not persuasive. Halling fails to teach that the inner member has a full plating of a cooper base material. Halling teaches that the inner member has a full plating of a metal base material.

Villepoix teaches that is known in the art to have an inner member that has a plating of a cooper material (Col. 1 Lines 31-35).

Applicant is reminded that the selection of a known material based upon its suitability for the intended use is a design consideration within the level of skill of one skilled in the art. In re Leshin, 227 F.2d 197, 125 USPQ 416 (CCPA 1960).

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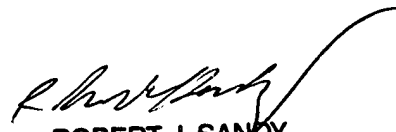
As to applicant's argument that Halling fails to disclose the same method as claimed, Halling disclose that the method to manufacture a seal using welding, die forming and rolling methods is known in the art (Col. 2 Lines 40-48).

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The patents cited further show the state of the art with respect to seals.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carlos Lugo. The examiner phone number is (703)-305-9747. The fax number for correspondence before a final action is (703)-872-9326 and the fax number for correspondence after final action is (703)-872-9327. The email direction of the examiner is carlos.lugo@uspto.gov. The examiner can normally be reached on Monday to Friday from 9:30am to 6:30pm (EST). If the examiner is not available, please leave a message, including the application number and the examiner will answer the message as soon as possible.

March 12, 2003


ROBERT J. SANDY
PRIMARY EXAMINER